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10/021,101	10/30/2001	Donald E. Woodmansee	9038-119600	8973

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EXAMINER
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LEROUX, ETIENNE PIERRE

ART UNIT	PAPER NUMBER
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2171

DATE MAILED: 02/24/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/021,101

Applicant(s)

WOODMANSEE, DONALD E.

Examiner

Etienne P LeRoux

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### *Specification*

The disclosure is objected to because of the following omission:

#### Field of the Invention:

A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 16 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 16 recites "wherein said database uses numeric descriptors to represent which one of said engines a part is installed in and which position in said engine a part is located." One of ordinary skill in the art would not know how to make and use the invention because the specification does not support a descriptor which describes the position in the engine where the part is installed. It is difficult to understand how a descriptor is produced which describes the position of every nut and bolt in the engine.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Furthermore, MPEP § 2106 states:

**(b) Statutory Process Claims**

A claim that requires one or more acts to be performed defines a process. However, not all processes are statutory under 35 U.S.C. 101. Schrader, 22 F.3d at 296, 30 USPQ2d at 1460. To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan (discussed in i) below), or (B) be limited to a practical application within the technological arts (discussed in ii) below). See *Diamond v. Diehr*, 450 U.S. at 183-84, 209 USPQ at 6 (quoting *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1877)) (“A [statutory] process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing.... The process requires that certain things should be done with certain substances, and in a certain order; but the tools to be used in doing this may be of secondary consequence.”). See also *Alappat*, 33 F.3d at 1543, 31 USPQ2d at 1556-57 (quoting *Diamond v. Diehr*, 450 U.S. at 192, 209 USPQ at 10). See also *id.* at 1569, 31 USPQ2d at 1578-79 (Newman, J., concurring) (“unpatentability of the principle does not defeat patentability of its practical applications”) (citing *O’Reilly v. Morse*, 56 U.S. (15 How.) at 114-19). If a physical transformation occurs outside the computer, a disclosure that permits a skilled artisan to practice the claimed invention, i.e., to put it to a practical use, is sufficient. On the other hand, it is necessary for the claimed invention taken as a whole to produce a practical application if there is only a transformation of signals or data inside a computer or if a process merely manipulates concepts or converts one set of numbers into another.

Claims 1 and 9 are not drawn to computer executable code stored on computer readable medium.

Claims 2-8 and 10-20 are rejected for being dependent from a rejected base claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 6, 7, 9, 11, 14-16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 5,515,266 issued to Meyer (hereafter Meyer).

Claim 1:

Meyer discloses a method for tracking part histories for a set of serialized parts, said method comprising:

- providing a database of part status data [col 1, lines 28-30 and col 1, lines 40-43];
- noting when a service outage affecting one or more of said parts occurs [maintenance work per col 1, lines 28-30]
- and for each part in said database, entering the part status during an outage into said database [file is created during maintenance work per col 1, lines 28-30]

Meyer discloses the elements of claim 1 as noted above.

Meyer fails to disclose entering the part status at the end of said outage into said database.

Art Unit: 2171

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Meyer to include entering the part status at the end of said outage into said database.

The ordinarily skilled artisan would have been motivated to modify Meyer per the above for the purpose of including the most up-to-date information regarding the machine component parts so that the next outage can be accurately planned.

Claim 2:

Meyer discloses using part status data to evaluate remaining life for one or more of said parts [col 2, lines 15-23].

Claim 4:

Meyer discloses wherein said database uses text and/or numeric descriptors to represent part statuses [col 5, lines 40-45].

Claims 6 and 18:

Meyer discloses the elements of claim 1 as noted above.

Meyer fails to disclose wherein said part status data is sorted by part status.

However, Meyer discloses storing a status condition [col 5, lines 40-45]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Meyer to include wherein said part status data is sorted by part status.

The ordinarily skilled artisan would have been motivated to modify Meyer per the above for the purpose of searching a database to obtain the current status of a part so that a future outage can be planned.

Art Unit: 2171

Claims 7 and 19:

Meyer discloses calculating cumulative run hours for one or more of said parts [Fig 3 and col 5, lines 7-15].

Claim 9:

Meyer discloses a method for tracking part histories for a set of serialized parts used in one or more gas turbine engines, said method comprising:

- providing a database of part status data [stored as data in a file per col 1, lines 59-66];
- noting an engine outage date associated with a service outage of one or more of said engines; and for each part in said database [col 6, line 19-23],
- entering the part status into said database [col 5, lines 40-45] .

Meyer discloses the elements of claim 9 as noted above.

Meyer fails to disclose entering the part status at the end of said outage into said database.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Meyer to include entering the part status at the end of said outage into said database.

The ordinarily skilled artisan would have been motivated to modify Meyer per the above for the purpose of including data reflecting parts which have been refurbished during the outage.

Claim 11:

Meyer discloses using part status data to evaluate remaining life for one or more of said parts [col 2, lines 15-23].

Claim 14:

Art Unit: 2171

Meyer discloses said database uses shorthand descriptors to represent part statuses [col 5, lines 40-45].

Claim 15:

Meyer discloses the elements of claims 9 and 14 as noted above.

Meyer fails to disclose said database uses text descriptors to represent new part status, transferred part status and scrapped part status.

However, Meyer uses text descriptors to indicate the current operating condition [spare parts per col 7, lines 1-7, spare management per col 8, lines 53-56, defective parts per col 5, lines 40-45].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Meyer to include wherein said database uses text descriptors to represent new part status, transferred part status and scrapped part status.

The ordinarily skilled artisan would have been motivated to modify Meyer per the above for the purpose of identifying status so that it can be easily entered into a field in a relational database and subsequently searched in order to obtain current status of the machine components.

Claim 16:

Meyer discloses wherein said database uses numeric descriptors to represent which one of said engines a part is installed in [col 9, lines 8-42].

Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer in view of US Pat No 5,765,154 issued to Horikiri et al (hereafter Horikiri).



Art Unit: 2171

Claims 3 and 12:

Meyer discloses the elements of claims 1 and 9 as noted above.

Meyer fails to disclose wherein said database is a relational database comprising multiple tables linked by keys.

Horikiri discloses wherein said database is a relational database comprising multiple tables linked by keys [col 25, lines 60-66].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Meyer to include wherein said database is a relational database comprising multiple tables linked by keys as taught by Horikiri.

The ordinarily skilled artisan would have been motivated to modify Meyer per the above for the purpose of improving searching of a database by including a keyword [col 25, lines 60-66].

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Meyer and Horikiri in view of US Pat No 4,803,639 issued to Steele et al (hereafter Steele).

Claims 13:

The combination of Meyer and Horikiri discloses the elements of claims 9 and 12 as noted above.

The combination of Meyer and Horikiri fails to disclose wherein said part status data is sorted by part serial number.

Steele discloses wherein said part status data is sorted by part serial number [Fig 18, 342 and col 32, lines 5-26].

Art Unit: 2171

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Meyer and Horikiri to include wherein said part status data is sorted by part serial number as taught by Steele.

The ordinarily skilled artisan would have been motivated to modify the combination of Meyer and Horikiri per the above for the purpose of providing an easy means of retrieving machine component data based on the manufacturer's identification for the part.

Claims 5 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer in view of US Pat No 4,803,639 issued to Steele et al (hereafter Steele).

Claim 5 and 17:

Meyer discloses the elements of claims 1 as noted above.

Meyer fails to disclose wherein said part status data is sorted by part serial number.

Steele discloses wherein said part status data is sorted by part serial number [Fig 18, 342 and col 32, lines 5-26].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Meyer to include wherein said part status data is sorted by part serial number as taught by Steele.

The ordinarily skilled artisan would have been motivated to modify Meyer per the above for the purpose of providing an easy means of retrieving machine component data based on the manufacturer's identification for the part.

Claims 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer in view of US Pat No 5,033,010 issued to Lawrence et al (hereafter Lawrence).

Claims 8 and 20:

Meyer discloses the elements of claim 1 as noted above.

Meyer fails to disclose calculating cumulative starts for one or more of said parts.

Lawrence discloses calculating cumulative starts for one or more of said parts [col 14, lines 3-11].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Meyer to include calculating cumulative starts for one or more of said parts as taught by Lawrence.

The ordinarily skilled artisan would have been motivated to modify Meyer per the above for the purpose of recording low cycle fatigue events [Lawrence, col 14, lines 11-15]

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer in view of US Pat No 6,523,502 issued to Hughes (hereafter Hughes).

Claim 10:

Meyer discloses the elements of claim 9 as noted above.

Meyer fails to disclose said engine outage date is the date one of said engines is shut down.

Hughes as admitted prior art discloses said engine outage date is the date one of said engines is shut down [col 3, line 18].

Art Unit: 2171

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Meyer to include said engine outage date is the date one of said engines is shut down.

The ordinarily skilled artisan would have been motivated to modify Meyer per the above for the purpose of performing maintenance on the engine.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne LeRoux whose telephone number is (703) 305-0620. The examiner can normally be reached on Monday – Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached on (703) 308-1436.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Patent related correspondence can be forwarded via the following FAX number (703) 872-9306

Etienne LeRoux

2/17/2004

